

STATE OF IOWA  
DEPARTMENT OF COMMERCE  
UTILITIES BOARD

IN RE:  MIDAMERICAN ENERGY COMPANY	DOCKET NO. P-844
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**ORDER ESTABLISHING PROCEDURAL SCHEDULE AND PROPOSING TO TAKE  
OFFICIAL NOTICE AND NOTICE OF HEARING**

(Issued May 22, 2002)

On January 31, 2002, MidAmerican Energy Company (MidAmerican) filed a petition and exhibits for a permit to construct, operate, and maintain a new natural gas pipeline approximately 12.6 miles long in Polk County, Iowa. The proposed 16-inch diameter steel pipeline will transport natural gas from an existing Northern Natural Gas Company pipeline in Polk County, Iowa, to MidAmerican's existing Pleasant Hill Energy Center and the proposed Greater Des Moines Energy Center, in Polk County, Iowa.

On May 9, 2002, the Utilities Board (Board) assigned this proceeding to a presiding officer to establish a procedural schedule, set a hearing date, and conduct the proceedings pursuant to 199 IAC 7.1(4).

**The Board's Authority and Jurisdiction**

The Board has authority to grant permits for pipelines in whole or in part upon terms, conditions, and restrictions as to safety requirements, and as to location and route, as it determines to be just and proper. Iowa Code §§ 479.12 and 479.18 (2001).

To obtain a permit, the petitioner must show that the services it proposes to render will promote the public convenience and necessity. Iowa Code § 479.12.

The petitioner must also satisfy the financial requirements of Iowa Code § 479.26.

The petitioner must also comply with the land restoration plan requirements of Iowa Code § 479.29 and Board rules at 199 IAC chapter 9.

### **The Issues**

Pursuant to Iowa Code §§ 479.7 and 479.8 and 199 IAC 10.6, this matter will be set for a public hearing for the presentation of oral and documentary evidence and the cross-examination of witnesses concerning the public convenience and necessity issue, any safety issues, any pipeline location and route issues, the financial issues, land restoration plan issues, and issues raised by objectors or any other party. The conduct of this case will be governed by Iowa Code Chapters 17A and 479, and by Board rules at 199 IAC chapters 9 and 10.

### **Prepared Testimony and Exhibits**

All parties will be given the opportunity to present and respond to evidence and argument on all issues, and to be represented by counsel at their own expense. Iowa Code § 17A.12(4). The proposed decision and order that the administrative law judge will issue in this case must be based on evidence contained in the record and on matters officially noticed in the record. Iowa Code § 17A.12(8). Unless contrary arrangements are made on the record at the hearing, all evidence will be received at

the hearing, and the record will be closed to any further evidence at the conclusion of the hearing.

The submission of prepared evidence prior to hearing will help to identify disputed issues of fact to be addressed at the hearing. Prepared testimony contains all statements that a witness intends to give under oath at the hearing, set forth in question and answer form. When a witness who has submitted prepared testimony takes the stand, the witness does not ordinarily repeat the written testimony or give a substantial amount of new testimony. Instead, the witness is cross-examined by the other parties concerning the statements already made in writing. The use of prepared testimony prevents surprise at the hearing and helps each party to prepare adequately for the hearing, so that a full and true disclosure of the facts can be obtained. Iowa Code §§ 17A.14(1), 17A.14(3) and 479.11. This procedure also tends to diminish the length of the hearing and spares the parties the expense and inconvenience of additional hearings.

MidAmerican submitted prepared testimony with its petition. It must submit updated and additional prepared testimony and exhibits prior to the hearing. At a minimum, MidAmerican's prepared testimony must address the issues listed above. In addition, MidAmerican must address the issues identified in a letter dated March 14, 2002, from Mr. Don Stursma to Mr. Robert P. Jared, those identified in the attached March 14, 2002 report by Mr. Stursma, and those identified in the attached April 26, 2002 report by Mr. Stursma, to the extent it has not already done so.

MidAmerican must also address the issues identified in the written objections that have been filed in this docket.

In particular, MidAmerican must provide additional testimony to explain Table 1 Route Summary, and Table 2 Analysis – Routes 2, 3, 4, and 5 that are contained in petition Exhibit F Revised. MidAmerican must provide testimony explaining in greater detail why it chose Route 2 (Direct Route), particularly in comparison with Route 3 (Highway 65 Corridor Route). With respect to Route 3, MidAmerican must provide evidence of the number of property owners along the route, the number of easements it would need if this route were chosen, and a discussion of the development along Route 3. MidAmerican must provide a detailed comparison of the safety issues related to Routes 2 and 3.

The petition proposes a maximum allowable operating pressure (MAOP) of 960 psig. In Revised Exhibit F, MidAmerican states, "it is anticipated the line will never operate over 800 psig." In its prepared testimony, MidAmerican must address whether it would be willing to accept a MAOP of 800 psig if the petition is approved, and if not, why not. If MidAmerican would accept a MAOP of 800 psig, it must address how this would affect the safety issues related to the route, and submit a revised petition reflecting the new MAOP.

It is unclear from the petition whether MidAmerican owns the road between the existing Pleasant Hill Energy Center and the proposed Greater Des Moines Energy Center. MidAmerican must explain the ownership status of the road in its prepared testimony. If MidAmerican does not own the road, it must file a petition for

a permit (or amend its current petition) for the portion of the pipeline that will run from the Pleasant Hill Energy Center to the proposed Greater Des Moines Energy Center with its prepared testimony.

Finally, MidAmerican must submit prepared testimony that explains the confidential exhibit it filed in this docket (Attachment 1C, pages 2 and 3). If MidAmerican wishes to claim the prepared testimony confidential, it must follow the requirements of 199 IAC 1.9.

The Consumer Advocate Division of the Department of Justice (Consumer Advocate), and any objectors may also file prepared testimony and exhibits before the hearing in accordance with the procedural schedule.

Parties who choose not to file prepared testimony and exhibits before the hearing will not be precluded from participating in the proceedings. If an objector, for example, does not intend to present evidence going substantially beyond the information contained in the letter of objection, it is unnecessary for the objector to file prepared testimony. However, when a party has a substantial amount of information to present to the Board about the petition, if the information has not been previously disclosed to the Board, it should be presented in the form of prepared testimony and exhibits according to the procedural schedule established below.

### **Party Status**

MidAmerican and the Consumer Advocate are parties to this proceeding.  
Iowa Code §§ 17A.2(8) and 475A.2.

Fifteen people have filed objections to the petition as of the date of this order. They are listed on the attached document entitled "Docket No. P-844 Objections." Each of these 15 objectors, and anyone else who files an objection pursuant to Iowa Code §§ 479.9 and 479.10 and 199 IAC 10.5, will also be presumed to be a party to this case.

However, no objector is entitled to party status merely because that person has written a letter. In order to qualify as a party, the objector must be able to demonstrate some right or interest that may be affected by the granting of the permit. Iowa Code § 479.9. An objector's status as a party may be challenged at the hearing, and an objector who cannot demonstrate a right or interest that may be affected by the granting of the permit will no longer be considered a party. Therefore, at a minimum, objectors should be prepared to give evidence that will explain the nature of their specific rights or interests they believe should be protected and will show how these rights or interests will be affected by the pipeline. As has already been noted, to the extent that the evidence goes substantially beyond information already communicated to the Board in an objection letter, it should be reduced to writing and filed as prepared testimony according to the procedural schedule established below.

Because objectors will be presumed to be parties up to the time of the hearing, an objector will receive copies of all documents that are filed in this docket after the letter of objection has been filed with the Board. This means that if a person files an objection after some or all of the prepared testimony and exhibits

have already been filed with the Board by other parties, the objector should make direct contact with the parties who have already filed prepared testimony and exhibits in order to obtain a copy of those materials. The official file of this case will be available for inspection at the Utilities Board Records Center, 350 Maple Street, Des Moines, Iowa. 199 IAC 1.9(1).

Objections must be filed not less than five days prior to the date of hearing. Late filed objections may be permitted if good cause is shown. 199 IAC 10.5. Objections must be made in writing and filed with the Executive Secretary of the Utilities Board, 350 Maple Street, Des Moines, Iowa 50319-0069.

After an objector has filed a letter of objection, all further communications from the objector to the Board having to do with this case (including motions or prepared testimony and exhibits) must be sent to the Executive Secretary. A party (including objectors) must file an original and six<sup>1</sup> copies of each communication with the Executive Secretary, and the party must send one copy to each of the other parties to this case. 199 IAC 1.8. Along with the communication being sent, the party must file with the Board a certificate of service that conforms to 199 IAC 2.2(16), that verifies a copy of the document was served upon the other parties.

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<sup>1</sup> Ordinarily, the Board requires that an original and two copies be filed in P-Dockets. 199 IAC 1.8(4)"d." However, the rule provides that additional copies may be requested, and additional copies are needed in this case.

These procedures are necessary to comply with Iowa Code § 17A.17, which provides in part:

Unless required for the disposition of ex parte matters specifically authorized by statute, parties or their representatives in a contested case and persons with a direct or indirect interest in such a case *shall not communicate, directly or indirectly, in connection with any issue of fact or law in that contested case, with a presiding officer in that contested case, except upon notice and opportunity for all parties to participate* as shall be provided for by agency rules.

Iowa Code §§ 17A.17(2) (emphasis added). Objectors and parties should examine 199 IAC Ch. 10 and 199 IAC 1.8 for other substantive and procedural rules that apply to this case.

### **Proposal to Take Official Notice**

Mr. Don Stursma, manager of the Safety & Engineering Section, has prepared two memos, dated March 14 and April 26, 2002, concerning MidAmerican's petition pursuant to Iowa Code § 479.11. A copy of each memo is attached to this order. Pursuant to Iowa Code § 17A.14(4), the administrative law judge proposes to take official notice of the memos and of the facts contained therein, thus making them a part of the record of this case. Iowa Code § 17A.12(6)(c). Any party objecting to the taking of official notice of the memo must file such objection as soon as possible, and no later than five days prior to the hearing. The parties will have the opportunity to contest any information contained in the memo in prefiled testimony and at the hearing.



### **Eminent Domain**

MidAmerican has requested the use of the right of eminent domain for the parcels listed in Exhibit H of the petition. A copy of the most current version of Exhibit H filed in the case is attached to this order. MidAmerican must keep Exhibit H current, and must file an updated version of the exhibit with its prepared testimony, and another five days prior to the hearing. In addition, MidAmerican must file the eminent domain notice required by Iowa Code § 479.7 for Board approval within seven days of the date of issuance of this order. MidAmerican must address the eminent domain issues identified in the April 26, 2002 memo by Mr. Stursma in its prefiled testimony.

#### **IT IS THEREFORE ORDERED:**

1. Each person who files a letter of objection to MidAmerican's petition in this docket will be presumed to be a party in the proceeding unless it is established at hearing that the objector has no right or interest that may be affected by the pipeline.

2. Objections must be made in writing and filed with the Executive Secretary of the Utilities Board, 350 Maple Street, Des Moines, Iowa 50319-0069, no later than five days before the hearing. Objectors must file an original and six copies of all subsequent communications to the Board with the Executive Secretary. The communications must be accompanied by a certificate of service.

3. The following procedural schedule is established:

a. On or before June 12, 2002, MidAmerican must file prepared direct testimony relating to its petition for a permit to construct, operate, and maintain a natural gas pipeline as discussed above.

b. On or before July 9, 2002, the Consumer Advocate and any objector may file prepared responsive testimony.

c. A public hearing for the presentation of evidence and the cross-examination of witnesses concerning the issues identified in this notice of hearing will be held **beginning at 9:30 a.m. on Tuesday, July 30, and Wednesday, July 31, 2002**, in the Board Hearing Room, 350 Maple Street, Des Moines, Iowa. Persons with disabilities who will require assistive services or devices to observe this hearing or participate in it should contact the Utilities Board at (515) 281-5256 in advance of the scheduled date to request that appropriate arrangements be made.

d. Required number of copies. All parties must file an original and six copies of all documents filed with the Board. 199 IAC 1.8(4)"d."

4. The administrative law judge proposes to take official notice of Mr. Stursma's memos dated March 14 and April 26, 2002, attached to this order, and of the facts contained therein. Any party objecting to the taking of official notice of the memo should file such objection as soon as possible, and must file such objection no later than five days prior to the hearing. Any party desiring to cross-

examine Mr. Stursma concerning the statements contained therein must file a notice of intent to cross-examine no later than five days prior to the hearing.

5. Pursuant to Iowa Code §§ 17A.12(1) and 199 IAC 10.4, a copy of this order will be served by ordinary mail upon MidAmerican, the Consumer Advocate, the objectors on the attached list, and the persons listed on attached Second Revised Exhibit H-1 (eminent domain list).

6. MidAmerican must keep Exhibit H current, and must file an updated version of the exhibit with its prepared testimony, and another five days prior to the hearing. In addition, MidAmerican must file the eminent domain notice required by Iowa Code § 479.7 for Board approval within seven days of the date of issuance of this order.

**UTILITIES BOARD**

/s/ Amy L. Christensen  
Amy L. Christensen  
Administrative Law Judge

ATTEST:

/s/ Judi K. Cooper  
Executive Secretary

Dated at Des Moines, Iowa, this 22<sup>nd</sup> day of May, 2002.

**IOWA UTILITIES BOARD  
Safety & Engineering Section**

**TO:           The File**

**FROM:       Don Stursma**

**DATE:       March 14, 2002**

**SUBJECT:   Field Inspection of the Proposed Pipeline Route in Docket No. P-844;  
MidAmerican Energy Proposed 16-inch Natural Gas Pipeline in Polk  
County**

The inspection was conducted on March 13, 2002. The weather was overcast and breezy with temperatures in the 40s.

Inspection of the route utilized the air photo based maps filed by MidAmerican as Exhibit B and as part of Exhibit H. In addition, wood lathe with pink ribbon were observed which appeared to mark the proposed pipeline location. Nineteen photographs of the pipeline route or adjacent areas were taken during the inspection. On the back of each photo is a description of where it was taken at and the direction.

The land is flat to gently rolling. No substantive natural barriers to construction were observed. Man-made barriers include substantial road crossings (presumably to be bored) at Interstate 80, U.S. Highway 6 (NE Hubbell Ave.), NE 46<sup>th</sup> Ave., and Highway 163. Between Pine Valley Drive and Partridge Ave. in Pleasant Hill there appeared to be substantial encroachment onto the 161 kV line right-of-way by residential fences and outbuildings - pipeline construction through this area may be disruptive to the property owners. (See Photos 11-15) The pipeline is also close to commercial buildings on Tracts 25 and 26, but it was not clear whether construction would be a serious inconvenience. (See Photo 4)

Using the 49 C.F.R. 192.5 class location system, the areas north of and adjacent to Interstate 80 would be Class Location 1. The Pleasant Hill area would be Class Location 3. Other areas near Pleasant Hill would be Class 1 or 2. Because MidAmerican's petition filing indicates the entire pipeline will be designed to the higher Class 3 standards, the specific limits of each class location area were not determined.

The maps appeared to generally accurately reflect land use and the location of structures. However, at several locations recently constructed buildings were found that are not shown on the maps:

1) Tract 6: A house and an outbuilding were observed in this rural area that are not shown on the maps. They may be within 300 feet of the pipeline; if so Exhibit H will require amendment.

2) Tract 60: The maps show this tract as open property (Jordan Development) within Pleasant Hill, but inspection found a paved road built and several houses under construction, some apparently within 300 feet. This will apparently require Exhibit H be amended.

3) East/Southeast of Tract 66 in Pleasant Hill: Two houses were found built along Evans Drive that are not on the maps. The closest - 5165 Evans - is apparently about 200 feet from the proposed pipeline route. The resident at this address, Lavonne R. Miles, has filed an objection. According to the property lines shown on Exhibit H, no easement is needed from these landowners.

4) Additional homes were also found being built west of Tract 60 along Burr Oak Blvd. in Pleasant Hill. According to the property lines shown on Exhibit H, no easement is needed for those properties.

The Lavonne R. Miles objection states the pipeline would be next to her day care. The location of the day care was not stated. However, it appeared from the presence of small child play equipment that the Oakwood United Methodist Church may have a day care center. The church is east of Sunrise Park and about 450 feet from the pipeline route.

Off of the Southwest corner of tract 16 north of I-80, but not on Tract 16, is a residence and a number of other buildings. The route is shown running east of these buildings. However, lathe and pink ribbon, similar to that used to mark the pipeline route, was found along the road on the west side of those buildings. MidAmerican should be asked what if anything these markers have to do with the pipeline project. (See Photos 2 and 3)

Inspection found no major technical problems with the route. There will be several major road bores and several stream crossings, but there are no substantial obstacles to construction. Most of the route is in open farm land or on electric transmission line right-of-way where it appeared there will be adequate open space for construction, but in several areas construction may be constricted by adjacent development. However, the project does pass through residential and commercial areas in and near Pleasant Hill, and as evidenced by the objections there are residents concerned about the proximity of this pipeline.

The MidAmerican filing did not contain sufficient detail on the location of alternate routes to permit inspection. However, according to the objection letter filed by Matt Schreiber a route on the east side of U.S. Highway 65 has been discussed with area

residents. South of Highway 163 (University Ave.) the Highway 65 right-of-way is very wide on the east side, and the ground more rugged than on the proposed route. A pipeline route following the edge of the east right-of-way would pass close to several homes and what appeared to be a condominium complex.

**IOWA UTILITIES BOARD**  
**Safety & Engineering Section**

**TO:** File P-844

**FROM:** Don Stursma

**DATE:** April 26, 2002

**SUBJECT:** Staff Review of MidAmerican Energy Petition for Pipeline Permit for 12.6 Miles of 16-inch Diameter Natural Gas Pipeline in Polk County, Iowa.

Background

On November 29, 2001, MidAmerican Energy Company (MidAmerican) held an informational meeting, as required by Iowa Code § 479.5, in Pleasant Hill, Iowa, for the above project. This meeting was a prerequisite for filing a petition for pipeline permit and for entering into easement negotiations with landowners. Don Stursma, Manager of the Safety and Engineering Section for the Iowa Utilities Board (Board), was the presiding officer. Approximately 110 persons, including MidAmerican personnel, were in attendance.

On January 31, 2002, MidAmerican filed a petition for pipeline permit for this project with the Board. On March 14, 2002, Board staff conducted a field examination of the proposed route. By letter dated March 14, 2002, Board staff advised MidAmerican of petition deficiencies requiring correction, and also sought clarification of certain matters. On March 27, 2002, MidAmerican filed revisions to the petition and provided additional information.

The proposed pipeline would take natural gas from a Northern Natural Gas pipeline at a connection point east of Ankeny, thence travel in a generally southerly direction to MidAmerican's existing Pleasant Hill Energy Center and proposed Greater Des Moines Energy Center, both located south of Pleasant Hill. Both facilities are gas-fired electric generation facilities.

Petition and Exhibits

*Petition.* The petition seeks a pipeline permit from the Iowa Utilities Board pursuant to Iowa Code chapter 479 for 12.6 miles of 16-inch natural gas pipeline in Polk County. It also requests the right of eminent domain for securing right-of-way for the project.

*Exhibit A.* This exhibit provides a legal description of the project route. The description is rather general but meets the requirements of 199 IAC 10.2(1) “a”.

*Exhibit B.* This exhibit is a map of the pipeline route. The map provided uses as its base aerial photographs of the route, which provides more detail than most line-drawn maps.

MidAmerican states the aerial photographs were taken on April 2, 2000. Staff field inspection found no substantive changes since that time. It was found that several additional residences or buildings have been or are being constructed in the area of the pipeline route, but 199 IAC 10.2(1) “b” does not require that individual buildings be shown on this exhibit.

*Exhibit C.* This exhibit provides engineering and technical information on the proposed pipeline and some details of features being crossed. The revision filed on March 27, 2002, shows a heavier pipe than initially proposed would be installed between the north corporate limits of Pleasant Hill and Parkridge Ave. Staff understands this change resulted from discussion between MidAmerican and Pleasant Hill residents.

*Exhibit D.* The purpose of this exhibit is to establish that the petitioner has the financial wherewithal to pay damages of up to \$250,000 arising from the construction or operation of the pipeline pursuant to Iowa Code § 479.26 and 199 IAC 10.2(1) “d.” The exhibit consists of copies of selected pages from MidAmerican’s 2000 gas annual report to the Federal Energy Regulatory Commission plus an affidavit stating that the property listed includes property in Iowa other than pipelines, and subject to execution, with value in excess of \$250,000.

*Exhibit E.* Pursuant to Iowa Code § 479.24, Chapter 479 does not authorize the construction of pipelines longitudinally on railroad or highway right-of-way, or crossing railroad or highway right-of-way at other than an approximate right angle,<sup>2</sup> without the consent of the railroad company or highway authority. Exhibit E is to show that necessary consents have been obtained.

The filed exhibit states that there is no longitudinal occupancy, but the Exhibit B map shows many of the crossings are at other than an approximate right angle. The exhibit states that because pipeline alignment at such crossings is not yet finalized, consents from railroad companies and highway authorities are yet to be obtained. This is permissible; pursuant to 199 IAC 10.2(1) “e” the Board can act

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<sup>2</sup> An approximate right angle is defined in 199 IAC 10.1(1) as within 5 degrees of a 90 degree angle.



on a petition without such consents, but construction cannot commence until the consents are obtained and filed with the Board.

*Exhibit F.* In this exhibit the petitioner is required to provide statements covering a list of topics specified in Iowa Code § 479.6 and 199 IAC 10.2(1)“f.” MidAmerican has also included in this exhibit a study of routing alternatives,<sup>3,4</sup> information concerning the safety of the pipeline, and actions proposed to enhance its safety.

*Exhibit G.* This is an affidavit stating that the required informational meetings were held.

*Exhibit H.* This exhibit describes the rights and properties for which eminent domain is sought. In the initial filing eminent domain was requested for 40 tracts of land. The amended filing on March 27<sup>th</sup> listed 26 properties, reflecting the attainment of voluntary easements for some tracts.<sup>5</sup>

*Exhibit I.* This is the land restoration plan required to be filed as part of the petition by Iowa Code § 479.29(9) and 199 IAC 9.2 and 9.3. The plan only applies to agricultural lands and is not applicable to the urban right-of-way. Staff review concludes that the plan as amended in the March 27, 2002, filing is in substantial compliance with the applicable provisions of 199 IAC Chapter 9.

### Route

The route begins at a connection to Northern Natural Gas Company at a proposed delivery and metering station near the NW corner of Section 28, T80N, R23W, Polk County. It proceeds in a generally southern direction and terminates at a filter-separator facility on MidAmerican property located adjacent to existing and proposed MidAmerican electric generating facilities in the SE 1/4 of Section 17, T78N, R23W, Polk County, Iowa.

According to the letter MidAmerican filed with its March 27, 2002, amendments, the south terminus station would consist of a gas filter, an internal inspection device launcher and receiver, and a valve header that connects to three service

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<sup>3</sup> It appears that in Exhibit F Revised Attachment 2, Tables 5 and 8 were not updated to reflect project changes following discussions with Pleasant Hill residents after the initial petition filing. MidAmerican should correct those tables prior to the hearing.

<sup>4</sup> Competitive pricing information from two potential natural gas suppliers was filed Confidential.

<sup>5</sup> Staff understands two additional voluntary easements have since been obtained that are not yet reflected in Exhibit H.

lines. Exhibit B (map) and Exhibit C (specifications) show two of these three lines; a 16-inch and a 12-inch, both rated at 960 psig.<sup>6</sup> Ordinarily, 199 IAC 10.16 requires that any pipeline operating at over 150 psig must obtain a pipeline permit from the Board. However, when a pipeline is located entirely on end user property downstream of a defined pipeline terminus, staff's understanding is that such pipelines are not engaged in "transportation or transmission" as stated in Iowa Code § 479.1, and a pipeline permit is not required.

The north four miles of the proposed pipeline route is rural with few dwellings, and is primarily in agricultural land use. The south 8.6 miles is through a combination of rural and urban area and includes portions within the corporate limits of Altoona and Pleasant Hill, Iowa. It crosses four railroads, four primary highways, 23 foreign pipelines, and 11 streams. With the exception of railroad crossings, road crossings, and a public park in Pleasant Hill, the route is entirely on private right-of-way.

The first half mile of the route is adjacent and parallel to the Northern Natural Gas Company pipeline. For approximately the next two miles it parallels a Union Pacific railroad, adjacent to but not on railroad right-of-way. The next 3.5 miles runs cross-county, largely along section lines and/or property lines. It then parallels Highway 65 for approximately two miles, adjacent to but not on highway right-of-way. The final five miles, which includes the portion through Pleasant Hill, would be almost entirely within a 180 foot wide MidAmerican electric line corridor containing an existing 345/161 kV double circuit electric transmission line. A section of pipeline route in the vicinity of University Avenue departs from the electric line route apparently due to the presence of commercial buildings directly under the electric line.

It appears this routing attempts to minimize interference with future land use and reduce the impact of the pipeline on possible future urban development in the rural areas. Land use is already restricted in the electric line corridor and adjacent to the Northern pipeline. The railroad and highway represent existing boundaries to future development plans. For electric transmission lines, Iowa Code § 478.18 recognizes routes paralleling railroad rights-of-way, division lines of land and roads<sup>7</sup> as minimizing interference with land use.

Rule 199 IAC 10.7 states "Where proposed construction has not been established definitely, the permit will be issued on the route or location as set forth in the petition, subject to deviation of up to 160 rods on either side of the

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<sup>6</sup> Pounds per square inch gauge, or pressure above atmospheric pressure.

<sup>7</sup> 2002 Iowa Acts, Senate File 2086

proposed route.”<sup>8</sup> One hundred sixty rods is one-half mile. In this petition the route appears to have been “established definitely” and the permissive deviation would not apply. Minor adjustments may be in order to respond to unexpected conditions or landowner requests, but allowing deviation of this magnitude could negate the effort to minimize interference with future land use provided by the specific routing proposed in the petition.

There are several areas where the pipeline will be close to buildings. At the location where U.S. Highway 6 (NE Hubbell Ave.) and NE 46<sup>th</sup> Avenue cross Highway 65, there is a triangular area where the pipe would be in close proximity to two commercial buildings. These are both eminent domain parcels and Exhibit H shows the pipeline would be within 35 ft. of one (Tract 25) and 118 ft. of the other (Tract 26). There are rural residences near the route north of the Interstate 80 crossing (adjacent to Tract 16, within 300 ft.) and at NE 27<sup>th</sup> Ave. (Tract 32, 138 ft.). In Pleasant Hill, from approximately the north corporate limits to Parkridge Avenue, there are dozens of residences and commercial buildings adjacent to the route, including some within 100 feet. In Pleasant Hill the route also passes through Sunrise Park, a city park located between Jennifer and Oakland Drives. Several new residences are under construction on the Jordan Development property south of Oakland Drive.

In the area between Pine Valley Drive and Parkridge Avenue east of Hickory Boulevard there has been substantial encroachment into the electric line corridor, including under the electric lines themselves, by residential yard fences and outbuildings. The pipeline route attempts to skirt around the east side of this activity, but some of these fences and buildings may need to be removed for pipeline construction.

As previously noted, the first (northernmost) half mile of this pipeline would parallel the Northern Natural Gas pipeline. It appears the MidAmerican pipeline could connect to the Northern line half a mile to the east, reducing the length of new pipeline required. Staff understands there is a reason for the connection point proposed, but finds nothing in the petition exhibits that provides an explanation. MidAmerican needs to provide this explanation at hearing.

As part of Exhibit F, MidAmerican filed a copy of a report entitled “Greater Des Moines Energy Center: Gas Transmission Pipeline Selection Recommendation,” dated February 21, 2002. It evaluates the following eight potential routes:

1. NGPL South
- 1A. NGPL South: Option

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<sup>8</sup> In Docket No. INU-00-1, the rules review ordered by the Governor’s Executive Orders 8 and 9, it is proposed the permissive deviation be reduced to 600 feet.

2. Direct Route
3. Highway Corridor
4. Sewer Route
5. Bike Path
6. Secondary Route
7. Far East Route.

Routes 1 and 1A presumed purchase of gas from the Natural Gas Pipeline Company of America pipelines to the south, rather than the Northern Natural Gas Company lines to the north.<sup>9</sup> Route 6 examined placing the northern portion of the pipeline on another electric line route. The other routes all explored possible ways to avoid the highly developed and congested Pleasant Hill area. In addition, although not examined to the extent of other alternatives, following the existing Williams Pipeline Co. corridor was also considered. That route contains five pipelines and a fiber optic line; it was rejected because there was not adequate space for another pipeline.

Route 2, the Direct Route, was selected. It is 12.6 miles long compared to 13 to 22 miles for other alternatives. It could utilize 16 inch pipe, the others would require 20 or 24 inch pipe to transport the required gas volumes. Routes 4 and 5 would encounter difficult terrain and working conditions. Five miles (40%) would be on electric line easement where land use is already restricted. In terms of cost, the Direct Route cost estimate is \$12,553,000, and the alternatives range in cost from \$15,883,000 to \$25,504,000. Based on certain comments in the report, it appears the cost for the Direct Route includes modifications to the project (heavier pipe, deeper burial depth) made after the original filing.

Based on this information, selection of the Direct Route appears reasonable, although questions remain about the first half mile. In addition, as discussed below, MidAmerican is proposing measures over and above safety code requirements to address safety concerns in the Pleasant Hill area.

### Engineering and Safety

The primary technical standards for natural gas pipelines are found at 49 C.F.R Part 192, "Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards." The Board has adopted these standards by reference in 199 IAC 10.12. Board staff has reviewed the information in the petition for compliance with those standards. During construction, Board staff

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<sup>9</sup> Information to support MidAmerican's decision to select Northern as its supplier was filed Confidential.

anticipates inspecting the manner of construction and testing for compliance with these standards.<sup>10</sup>

The federal pipeline safety regulations at 49 C.F.R. § 192.5 contain a “Class Location” system that ranks pipelines based on the number of buildings intended for human occupancy along the route. Pipelines are assigned to Class 1, 2, 3, or 4, with the higher classifications subject to more stringent standards. The rural portions of this pipeline would be Class 1, and the portion through Pleasant Hill would be Class 3. MidAmerican states it will build and maintain the entire pipeline to Class 3 standards, therefore staff did not attempt to determine the exact boundaries of the different class locations. Because the route is close to the greater Des Moines metropolitan area, currently rural portions may experience urban development in the future, therefore staff considers Class 3 design reasonable and prudent.

In Exhibit F, MidAmerican describes 12 means by which the safety of this pipeline will be enhanced. These items will be used as the format by which staff will address these technical and safety issues; the italicized language is quoted directly from Exhibit F.

*1. The pipeline will operate at less than 30% Specified Minimum Yield Strength (SMYS) in Pleasant Hill residential area through pipe material selection and increase wall thickness to .375”. (Calculated based on NNG expected maximum delivery of 800 psig.*

“SMYS” is the stress level at which steel passes from the “elastic” to “plastic” range. In the plastic range, the stress permanently deforms (stretches) the steel, which is detrimental to its long term strength and performance. The federal standards at 49 C.F.R. § 192.111 limit pipelines in Class 3 areas to 50% of SMYS. (In Class 1 the limit is 72% SMYS.)

MidAmerican proposes using two different weights of 16-inch pipe. In rural areas it will use pipe with a nominal wall thickness of 0.281 inch. At road and railroad crossings, and in developed areas of Pleasant Hill (specifically, from the north corporate limits to Parkridge Ave.) the pipe will have a 0.375 inch wall thickness. In both cases the pipe steel would have a SMYS rating of 60,000 psi.

The pipeline would be designed and tested to allow operation to a Maximum Allowable Operating Pressure of 960 psig. However, MidAmerican anticipates that the pressure delivered by Northern will not exceed 800 psig. At 800 psig,

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<sup>10</sup> Inspection of agricultural land restoration is the responsibility of the county pursuant to Iowa Code § 479.29(2).

the thinner pipe would operate at 38% of SMYS, and the thicker pipe would operate at 28% of SMYS.

The combination of heavier pipe and an actual maximum operating pressure of 800 psig is significant. Above 30% SMYS is generally accepted as the stress range in which steel pipe will rupture at failure; ie, the pipe will split or tear open, releasing gas with explosive force and at a high flow rate.<sup>11</sup> By operating below 30% SMYS the hazard to adjacent areas from a pipeline failure is reduced. This is not to say that a leak could not be dangerous, but the degree of hazard would be less than if rupture occurred.

However, there is an exception to the 30% rule. Pipelines which fail at a point where the pipe suffered previous mechanical damage can rupture at pressures as low as 25% SMYS.<sup>12</sup> In other items MidAmerican is proposing measures to reduce the likelihood of damage to the pipeline. Such action is desirable in any event, as damage by excavation is a leading cause of pipeline accidents. For the period 1994-2001, damage by outside force accounted for 37% of all natural gas transmission line incidents reportable to the U.S. Department of Transportation, Office of Pipeline Safety (OPS), and 45% of the property damage.<sup>13</sup>

*2. Burial depth exceeds three feet regulatory requirements, five feet of cover in tillable land and in residential Pleasant Hill.*

The federal pipeline safety standards at 49 C.F.R. § 192.327 require Class 3 pipelines to be installed with 36 inches of cover (24 inches in consolidated rock). Board subrule 10.12(3) requires pipelines in tilled agricultural land be installed with a minimum cover of 48 inches, although 60 inches (5 feet) may be necessary to stay under agricultural drain tile lines.

The greater depth reduces the risk of damage caused by excavating equipment digging over or near the pipeline. This is particularly significant in the areas where encroachment onto the electric line corridor has occurred. A person planning an excavation, including digging post holes or an outbuilding

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<sup>11</sup> This was recently reevaluated in a study sponsored by the Gas Research Institute and conducted by Battelle entitled "Draft Topical Report: Leak versus Rupture Considerations for Steel Low-Stress Pipelines," Report No. GRI-00/232, January 2001. This study confirmed that for most failure conditions the leak to rupture transition occurred at or above 30% SMYS.

<sup>12</sup> Ibid. Major pipeline incidents at Bellingham, WA (sewer project) and Reston, VA (clandestine burial of a stolen and stripped vehicle) are examples of failure attributed to earlier, unknown damage to pipe.

<sup>13</sup> OPS Natural Gas Transmission Pipeline Incident Summaries by Cause at <http://ops.dot.gov/stats>. Data available for the years 1994-2001.

foundation, is required by Iowa Code Chapter 480 to call Iowa One-call at least 48 hours in advance. Iowa One-call notifies all utilities with facilities in the planned excavation areas, and the utility is then required to mark the location of its facilities, and also has the opportunity to work with the excavator to prevent damage to its facilities. Private individuals, however, may not be aware of the requirement that they call. In such cases the deeper burial depth will provide greater protection.

*3. QA program exceeds minimum requirements, including 100% x-ray circumference of field welds.*

MidAmerican should be asked to explain this statement in testimony or at hearing; it appears poorly worded. "QA" presumably means "Quality Assurance." The federal regulations at § 192.243 require 100% of pipeline butt welds in Class 3 areas be non-destructively tested (by methods such as x-ray or radiography), although exceptions are allowed if testing of certain welds is impractical.

*4. Remote operated shutdown valve located at the transfer point from Northern Natural Gas.*

This would presumably allow the flow of gas into the pipeline to be shut off by remote control in the event of an emergency. This should be much faster than if a person had to be dispatched to travel to the border station to operate a manual valve.

*5. Marker tape installed longitudinally above the pipeline to warn excavators of eminent pipeline contact in locations where pipe will be trenched in Pleasant Hill city limits.*

This is a commercially available stretchable plastic strip, often imprinted with warning language, that can be placed in the trench between the pipeline and the ground surface. The concept is that an excavator would encounter the tape before the pipe, and would thus be warned they are digging over a pipeline. This is not required by pipeline safety standards.

*6. Use of directional drilling to assure adequate depth and adequate separation distance to underground utilities.*

This method of installation generally results in a deeper burial depth than direct burial methods, and causes less surface disturbance. Its use is fairly common for stream and major road crossings. It is unclear from MidAmerican's filings whether this method would also be used at other locations. MidAmerican should be asked to explain in its testimony or at hearing.

*7. Four times per year leak survey of pipeline in populated areas will exceed the minimum annual leak survey requirements.*

The federal pipeline safety standards at § 192.706 require an annual leak survey of transmission pipelines carrying odorized gas. This proposal exceeds the usual standards.

*8. Gas will be odorized at point of custody with Northern Natural Gas.*

Presumably, this means the point of custody transfer at the beginning of the pipeline. Federal pipeline safety standards at § 192.625(b) would require the gas be odorized through the Class 3 Pleasant Hill area. Natural gas is naturally odorless; the distinctive smell is added. Odorization would make the presence of gas detectable by smell in the event of a leak.

*9. Northern's portion of the line will be designed to Class 3 design requirements.*

The meaning of this statement is unclear. MidAmerican indicates elsewhere that the entire pipeline will meet Class 3 design requirements. It does not appear Northern will have any piping except on the inlet side of the border station at the beginning of the pipeline. MidAmerican should be asked to explain this in testimony or at hearing.

*10. Line will monitored remotely for flow and pressure.*

With remote monitoring any sudden decrease in pressure or increase in flow, which may indicate a large leak or line break, would be immediately known, and the line could be shut down using the remote controlled valve discussed above. The ability to rapidly detect and respond could minimize the consequences of a line break.

*11. MEC will provide emergency response training for high pressure transmission to local emergency response. Training will be coordinated with other local pipeline operators.*

Presumably this means local first responders and other emergency response personnel will be advised on the proper response to a pipeline incident, including the actions they can expect MidAmerican to initiate. "Other" operators presumably includes Williams Pipeline; it is not apparent which if any other companies might be involved. MidAmerican should be asked to more fully explain this item in testimony or at hearing.

*12. MEC will provide brochures and conduct meetings with local residents to inform them of gas safety issues/awareness.*

This should promote safety by enhancing awareness of the pipeline's presence and of how to respond if any problems occur.



Staff concluded from this and other information filed that it appeared the project would comply with required standards. However, there remain several other issues where the information in the record is not sufficient to conclude there is compliance.

*Passage of internal inspection devices.* The federal regulations at § 192.150 require new transmission pipelines be designed and constructed to accommodate the passage of instrumented internal inspection devices. These devices (known as “smart pigs”) travel through the pipe and by various methods, such as looking for anomalies in an impressed magnetic field, can detect variations in pipe wall thickness that may be an indicator of corrosion, mechanical, or other damage. At present, the federal rules do not require such devices be used, but pipelines must be built so they could be used. Accommodations for pigging would include full opening valves, no sharp corners, and space in the stations at the ends of the pipeline to install the launching and receiving equipment needed if pigging is conducted. Staff has personal communications from MidAmerican indicating that these issues were addressed in design. Staff also observed that the Exhibit B map shows what appear to be two 90-degree corners that a smart pig could not traverse; however, both corners are on eminent domain properties, and the right-of-way requested in Exhibit H includes space for installing gradual bends. However, MidAmerican should be asked to put this information on the record in testimony or at hearing.

*Protection from the electric transmission line.* For five miles this pipeline would parallel an electric transmission line carrying 345,000 and 161,000 nominal voltage circuits. An incident or failure on this line could ground one of these conductors. Also, the electric line carries a shield wire, which acts as a linear lightning rod to intercept and ground lightning strikes. The current from a grounded fault or lightning can be picked up by metallic pipeline. Not only would an energized pipeline pose a hazard to any persons or equipment in contact with it, but the current could damage the anti-corrosion pipe coating or actually burn a hole through the pipeline. For this reason the federal pipeline safety standards at § 192.467(f) require a pipeline be protected from damage where located near electric transmission towers. It is also possible that the electric and magnetic fields from the electric lines could induce currents in the pipeline, which could have implications for welding during construction and corrosion control. MidAmerican does not address this issue in the petition filings, and should be asked to explain in testimony or at hearing.

*Four Mile Creek levee.* Staff inquired how construction would avoid damaging the flood control levee along Four Mile Creek. MidAmerican responded in its letter filed March 27, 2002, that the creek and levee would be directionally bored, and that the crossing design would be submitted to the U.S. Army Corps of Engineers for permitting and approval.

It appears that, for the most part, this project meets or exceeds the requirements of the safety standards. However, as discussed above there remain areas where clarification and/or additional information is needed.

### Security

After the tragedy of September 11, 2001, federal agencies began working to develop pipeline security contingency planning guidelines. While all material to date is preliminary and draft (and not for public distribution), it appears this pipeline may eventually have a higher critical facility rating than a typical pipeline, due mainly to its role in supplying electric generating facilities, and to a lesser extent its location in an urban area. In conversations with MidAmerican personnel, Staff discussed ideas for reducing the risk from vandalism or sabotage; however, there is nothing in the record. MidAmerican should advise the Board, in testimony or by other means, on any security precautions included its plans. Staff suggests MidAmerican consider whether this information should be filed Confidential.

### Eminent Domain

In the initial filing, eminent domain was requested for 40 tracts of land. The amended filing on March 27<sup>th</sup> listed 26 properties, reflecting the attainment of voluntary easements for some tracts. The following easement rights are being sought for each tract:

A PERPETUAL RIGHT OF WAY EASEMENT, WITH RIGHTS OF INGRESS AND EGRESS, FOR THE PURPOSE OF CONSTRUCTING, RECONSTRUCTING, OPERATING, MAINTAINING AND REMOVING A PIPELINE, TOGETHER WITH THE RIGHT TO RESTRICT GROUND ELEVATION CHANGES WITHIN THE RIGHT OF WAY EASEMENT AREA AND THE RIGHT TO REMOVE AND KEEP CLEAR ANY OBSTRUCTIONS IN SAID EASEMENT AREA, INCLUDING BUT NOT LIMITED TO TREES, PLANTINGS, BUILDINGS AND STRUCTURES, AND ALSO THE RIGHT TO USE A TEMPORARY WORK SPACE ADJOINING THE PERPETUAL RIGHT OF WAY EASEMENT, AS DEPICTED ON THE ATTACHED PARCEL MAP, WHICH TEMPORARY WORK SPACE IS TO BE USED ONLY DURING THE CONSTRUCTION OF THE PIPELINE.

The tracts covered by this language would include those where the pipeline would be on an existing electric line easement, under which the property may already be subject to certain rights and restrictions by MidAmerican. In correspondence filed March 27, 2002, MidAmerican states it wants the pipeline easements to be capable of standing alone.

Of the 26 tracts for which eminent domain is requested, 19 are for properties currently in agricultural or other undeveloped land use (those numbered between 1 and 32 excluding 25 and 26); 5 are for properties currently in commercial land use or commercial areas (25, 26, 43, 43A, 43B), one is for a tract in Pleasant Hill which is in the process of residential development (60), and one is for an individual residential property in Pleasant Hill (64A).

The desired permanent easement is 50 feet wide. The desired temporary construction easement is typically 25 feet wide adjacent to the permanent easement.<sup>14</sup> However, on 18 tracts additional temporary construction easement space is sought. The additional areas are typically located adjacent to roads or railroads and appear intended to accommodate boring equipment for crossings. The most common size is 50 by 150 ft, but may be less on congested or irregular tracts, or may be more, such as for presumably larger equipment for longer bores at Interstate 80 and at Hubbell Avenue where 75 by 400 ft. is requested. Tracts 1 and 18 also request a small amount of additional temporary easement at 90-degree changes in pipeline direction to accommodate installation of gradual bends in the pipe.

Under Iowa Code § 479.24, the width of an easement obtained by eminent domain is limited to 75 feet unless the company presents “sufficient evidence to demonstrate that a greater area is required.” The law does not distinguish between temporary and permanent right-of-way. It seems reasonable that additional work space may be necessary at locations where boring equipment must be accommodated. However, the current petition filing does not present evidence on the need for the additional space. MidAmerican will need to address this issue in testimony or at hearing.

It appears at least arguable that, under Iowa Code §§ 479.24 and 6B.2B, a party seeking eminent domain must have made a good faith effort to obtain voluntary easements. Staff understands from MidAmerican’s letter filed March 27, 2002, that this issue will be addressed in testimony.

### Objections

To date objections have been received from 15 individuals. In some cases the objection was made to the Governor’s office or legislators and subsequently forwarded to the Board, including several individuals who filed with both the Governor’s office and the Board. Objections submitted by e-mail were accepted as well as those filed by letter. The persons who have filed objections are:

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<sup>14</sup> MidAmerican initially requested a temporary right-of-way of 50 feet, or a 100 ft. wide total easement, but subsequently modified its request. If conflicting information is presented at hearing this may explain the difference.

1	Jesse & Connie Jean Uhl	5420 Sunrise Circle
2	Gary & Vickie Patterson	527 S Hickory Blvd
3	LaVonne R. Miles	5165 Evans Blvd
4	Laura Samuell	421 N Hickory Blvd
5	Jim & Lynn Kelly	700 S Hickory Blvd
6	Thomas Williams & Janice Hawkins	5326 E Oakwood Dr
7	Robert Almendinger	649 S Hickory Blvd
8	Robert Keller	4949 Cypress Dr
9	Ben Freeborn	4492 Concord Dr
10	R. Scott Nichols	5324 Susan Court
11	Connie L Buckroyd	662 S Hickory Blvd
12	Steve Williams	503 S Hickory Blvd
13	Brenda Brown	625 S Hickory Blvd
14	Carl Kirshbaum	175 Burr Oak Blvd
15	Matt Schreiber	603 S Hickory Blvd

All the objections were from persons with Pleasant Hill addresses.<sup>15</sup> Although the majority of the condemnation tracts are north of Pleasant Hill, no objections have been filed to date by those parties. Only one of the objecting parties (Brown) appears to be an owner of land on which the pipeline would be located, and a voluntary easement has since been signed for that tract.<sup>16,17</sup> It is not clear if easements were required from any of the other objecting parties owning land adjacent to the route, but their names do not appear as owners or parties in possession of any of the eminent domain tracts. Ten of the objectors' addresses indicate their property is within 300 feet or less of the pipeline, plus another concerns a similar property although the objector (Samuell) apparently is not the owner.

Almost every objection expresses concern for safety, and most suggest that an alternative route that does not affect developed areas should be found. Other concerns were the impact on property values and disruption of the neighborhood.

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<sup>15</sup> Ms. Buckroyd provided only a work address, but Polk County Assessor records show a person of this name at the above address.

<sup>16</sup> The landowner is listed as Kevin Brown at the same address.

<sup>17</sup> The signing of a voluntary easement does not remove the right of a property owner to object - See Docket Nos. E-21043, E-21044, E-21045, "Decision and Order Granting Franchise," March 9, 1993, pp 38-39.

Staff expects MidAmerican to respond to the objections in testimony or at hearing. Staff has discussed MidAmerican's route selection earlier in this report, and noted that the design for developed areas exceeds the required safety standards.

### Comments on Prefiled Testimony

MidAmerican's January 31, 2002, petition filing included the prefiled testimony of Jack L. Alexander, Dean A. Denegarth, David C. Grigsby, and Kenneth E. Schwartz.

Under Iowa Code § 479.12, the Board must find that "the services proposed to be rendered will promote the public convenience and necessity." Mr. Alexander's prefiled testimony addresses the public convenience and necessity issue. However, this testimony addresses only the alleged benefits of serving the proposed Greater Des Moines Energy Center electric generation facility. It appears this pipeline could also be of benefit to the existing Pleasant Hill Energy Center facilities also located at the terminus of this line. In addition, statements were made at the informational meeting that this line could also support gas service to existing and proposed new development in the Altoona and Pleasant Hill area.

The testimony of the other witnesses appears outdated. The testimony of Denegarth and Grigsby is not consistent with the changed information on the pipe design through Pleasant Hill included in the March 27, 2002, revision to the petition. In its letter dated March 14, 2002, staff also pointed out errors in this testimony.

Based on its letter filed March 27, 2002, staff expects MidAmerican will file significantly revised testimony. It is anticipated this testimony will also address the objections filed.

### Conclusions/Recommendations

1. The filing appears in sufficient order that the petition can be set for hearing.
2. This report recommends additional information be provided in MidAmerican's testimony or at hearing on a number of issues. These issues include:
  - a. Why the proposed pipeline parallels the Northern pipeline for half a mile, instead of connecting to the Northern pipeline half a mile further east. (Page 5)
  - b. MidAmerican's Exhibit F statement on weld inspection needs to be clarified. (Page 8)

- c. MidAmerican is asked to clarify its Exhibit F statement on the intended use of directional drilling. (Page 8)
  - d. MidAmerican is asked to clarify its Exhibit F statement that Northern's portion of the line will be designed to Class 3 design requirements. (Page 9)
  - e. MidAmerican is asked to explain which other pipeline operators also would be involved with emergency response training. (Page 9)
  - f. MidAmerican needs to explain how the pipeline will be designed to accommodate the passage of internal inspection devices. (Page 9-10)
  - g. MidAmerican needs to explain, for that portion of the route paralleling an electric transmission line (Page 10):
    - i. How the pipeline will be protected from fault currents or lightning strikes grounded by the electric line.
    - ii. How corrosion control measures will be protected from interference from induced electrical currents or charges from the electric line.
  - h. Security precautions. MidAmerican should consider if this information should be filed confidential. (Page 10)
  - i. MidAmerican needs to present evidence to support condemnation of right-of-way width in excess of 75 feet at certain locations. (Page 12)
  - j. MidAmerican needs to make a showing that it has made good faith efforts to obtain voluntary easements for right-of-way. (Page 12)
  - k. Respond to the objections filed. (Page 12-13)
  - l. Portions of the testimony prefiled with the original petition are in need of updating or revision. (Page 13)
3. MidAmerican should keep Exhibit H, the eminent domain filing, current if additional voluntary easements are obtained.
4. The route selection by MidAmerican appears reasonable from an engineering perspective, subject to clarification on the routing of the first half mile. This statement does not preclude MidAmerican from continuing to work with landowners on individual routing issues. Staff recommends that the 160-rod permissive deviation that may be allowed under Board rules not be extended to this project, although it is not intended that minor route adjustments to respond to unexpected conditions or landowner requests be prohibited.

5. The design appears to comply with the technical standards adopted by the Board, subject to clarification of several issues (listed above) in testimony or at hearing. In the Pleasant Hill area elements of the design exceed the requirements of those standards.

6. It appears that in Exhibit F Revised Attachment 2, Tables 5 and 8 were not updated to reflect project changes following discussions with Pleasant Hill residents after the initial petition filing. MidAmerican should correct those tables prior to the hearing.